

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 03-082773  
(43)Date of publication of application : 08.04.1991

(51)Int.CI.

C23C 22/24

(21)Application number : 01-219059  
(22)Date of filing : 25.08.1989

(71)Applicant : SUMITOMO METAL IND LTD  
(72)Inventor : KOIKE MASAO

## (54) COLORED FERRITIC STAINLESS STEEL AND ITS PRODUCTION

### (57)Abstract:

PURPOSE: To inexpensively produce a clear colored ferritic stainless steel free from striped irregularity by bringing an aqueous solution containing chromic acid and sulfuric acid into contact with the surface of a ferritic stainless steel having specific random texture.

CONSTITUTION: An aqueous solution containing chromic acid and sulfuric acid is brought into contact with the surface of a ferritic stainless steel having a random texture in which X-ray integrated intensity ratio does not exceed 3.0 in the textures at least in all of the (222), (211), (110), and (200) planes. By the above contact treatment, an oxide film is formed on the surface of the above steel and coloring is performed. The above-mentioned specific texture can be formed by a method in which a slab of ferritic stainless steel, such as SUS430 steel, is hot-rolled at &ge; about 850°C, cooled rapidly at &ge; about 10°C/S cooling rate immediately after the conclusion of rolling, coiled at &le; about 550°C, cold- rolled at &ge; about 50% cumulative rolling reduction, and annealed. By this method, the colored ferritic stainless steel free from the occurrence of striped irregularity, having homogeneous color tone, and suitable for building material use, ornamental use, etc., can be obtained.

## LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

Copyright (C), 1998,2000 Japan Patent Office